

conductive type and a plurality of semiconductor layers of a second conductive type formed in spaced-apart relation in a surface of the semiconductor substrate so that an etched surface portion of the semiconductor substrate is disposed between the semiconductor layers.

2. (Amended) A photodiode according to claim 1; further comprising a depletion layer formed in the semiconductor substrate by application of a reverse bias to the photodiode; wherein a distance between the semiconductor layers is 0.5 to 2 times a width of the depletion layer.

3. (Amended) A photodiode according to claim 1; wherein the etched surface portion of the semiconductor substrate comprises a wet-etched surface portion.

Kindly add the following new claims 4-14:

4. A photodiode according to claim 1; wherein the first conductivity type comprises n-type conductivity.

5. A photodiode according to claim 4; wherein the second conductivity type comprises p-type conductivity.

6. A photodiode according to claim 1; wherein the first conductivity type comprises p-type conductivity.

7. A photodiode according to claim 6; wherein the second conductivity type comprises n-type conductivity.

8. A method of manufacturing a photodiode, comprising the steps of: providing a semiconductor substrate of a first conductivity type; forming a plurality of spaced-apart semiconductor layers of a second conductivity type in a surface of the semiconductor substrate so that a surface portion of the semiconductor substrate is disposed between the semiconductor layers; and etching the surface portion of the semiconductor substrate that is between the spaced-apart semiconductor layers.

9. A method according to claim 8; wherein the etching step comprises etching the surface portion of the semiconductor substrate by wet etching.

10. A method according to claim 8; wherein the etched surface portion of the semiconductor substrate that is between the spaced-apart semiconductor layers is at a deeper level in the semiconductor substrate than an immediately surrounding unetched surface portion of the semiconductor substrate.

11. A method according to claim 8; wherein the first conductivity type comprises n-type conductivity.

12. A photodiode according to claim 11; wherein the second conductivity type comprises p-type conductivity.